

An evaluation of the webquest as a computer-based learning tool

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This paper explores the preparation and use of an internet activity for undergraduate learners in higher education (HE). It evaluates the effectiveness of using webquest as a computer-based learning (CBL) tool to support students to learn in HE. The evaluation undertaken offers insights into learner perceptions concerning the ease of use of the webquest, the success of the learning experience and the adequacy of the interaction and engagement afforded. Although displaying some significant strengths, the webquest design could be further enhanced to offer an additionally enriched learning environment. Importantly, the strengths and weaknesses identified by the learners serve to highlight issues which university teachers and others need to take into account in order to serve the needs of learners using such CBL tool. The findings reveal that students considered that the webquest significantly enhanced their learning. Promising directions for future development are also identified.

1. Introduction

Information and communication technologies have had a major impact on education and training around the world. E-learning is becoming increasingly incorporated into different educational programmes all over the world. There has recently been significant attention paid to the ways in which technology can be used to support students in higher education (HE) (Laurillard, 1993; Squires *et al.*, 2000). For example, telecommunication technologies used in distance learning have many benefits such as: (a) cutting the costs of education, (b) improving access to education and (c) providing time flexibility for learners (Mason, 1994; Owston, 1997). Ester (1995) found that computer-assisted instruction (CAI) and learning style can significantly improve student achievement and attitudes while decreasing necessary instructional times. In one of the most comprehensive studies on the effectiveness of using computers to

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increase student achievement, Kulik and Kulik (1991) found that computer-based tutorials produce improvements in learning outcomes by approximately 20%. Simulation, interactive video instruction, hypertext programs, bulletin boards and networks have also all been found to be effective in enhancing learning (Kulik *et al.*, 1986; Cronin & Cronin, 1992; Schlechter & Kolosh, 1992; Khalili & Shashaani, 1994). In addition, educational technologies such as the internet, satellite interactive television, and interactive multi-media CD-ROMs are widely used in technologically advanced nations around the world.

Various terms are used to describe how technology is employed in education, such as Computer-Assisted Learning, Computer-Aided Instruction, Resource-Based Learning and Interactive Multimedia Learning Environments. People tend to use terms that reflect the main function or mode of delivery. For example, web-based learning is the delivery of education via the internet, and Computer-Assisted Assessment (CAA) is the use of computers in either some or all of the activities involved in the delivery, marking and analysis of student assignments or examinations (Seale & Rius-Riu, 2001; Seale 2002).

However, Green and Gilbert (1995) argue that despite a greater degree of access to information and communication technology, HE utilisation of innovative technologies as a tool of teaching has remained low. Similarly, the National Committee (1997) found that there was little widespread use of computer-based learning in HE. Therefore, technology is regarded as a potentially valuable tool for improving teaching and learning in HE (Ely 1996). At the same time, it should be noted that technology alone does not guarantee solutions to educational problems. Technology will have a positive impact only when used within the framework of a solid strategic plan for constructive learning and teaching purposes (Harrison, 1997).

In this paper, computer-based learning (CBL) is used as a general term to encompass any use of a computer for the purposes of helping people to learn. In doing so, the paper focuses on the use of the webquest to support students and their learning for a particular set of activities. The study includes discussion of the definition, characteristics, and design of webquests.

The aim of this study is to evaluate the effectiveness of the webquest as a CBL tool. This aim will be achieved through evaluating four different objectives. Firstly, students' progress and development. Secondly, the user friendliness aspect of the webquest. Thirdly, the level of student engagement and interaction with the webquest. Finally, the learning experience of the students will be evaluated.

In short, the study presents a reflective and critical evaluation of a specific webquest designed for the Research Methods Module within the School of Sport, Performing Arts and Leisure at the University of Wolverhampton. This evaluation of students' experiences is undertaken in an attempt to further develop the webquest.

2. Webquest

The concept of webquest is relatively recent, dating from the mid-1990s. The term was created by Dodge (1995, in Ezell *et al.*, 2003) and the idea can be traced to him.

According to Dodge (1995), it is 'an inquiry-oriented activity in which most or all of the information used by learners is drawn from the Web. Webquests are designed to use learners' time well, to focus on using information rather than looking for it, and to support learners' thinking at the levels of analysis, synthesis, and evaluation'. Since then, the concept has become very popular in the academic world. Ezell *et al.* (2003) point out that webquests can be developed for various subject areas at different educational levels.

Ezell *et al.* (2003) argue that the webquest is a technological tool, which is frequently being used to improve the quality of teaching and learning. Within the context of HE, the present author believes that this type of technology has not been sufficiently used and there is room for further development. With a few appropriate modifications, webquests could provide a new effective instructional tool for university students and tutors, which could be used for both distance and traditional learning purposes. In order to introduce students to the challenge of webquests in HE, the author developed a multifaceted webquest activity which is described and analysed in this report.

Webquests can be developed for various subject areas at different educational levels. It has been decided to develop a webquest for the Research Methods module. The reasoning behind the use of the webquest for this module can be broken into seven main areas.

- Students may be more motivated to use e-learning for research than the more traditional modes (books, articles, etc.) (Littlejohn, 2003).
- The Association for Learning Technology (ALT) believes that learning technology adds value to both the efficiency, and the effectiveness, of the learning process (Seale & Rius-Riu, 2001, p. 3).
- Previous research revealed that nowadays students themselves will increasingly expect technology to play a part in their learning (DfES, 2002; Becta, 2002).
- Students can find current information on research methods by using a range of resources that may otherwise be difficult or expensive to use (Littlejohn & Higgison, 2003).
- Motivating and supporting students to take responsibility for their own learning (Littlejohn & Higgison, 2003).
- Students can connect with resources they might not have otherwise been able to use.
- Research methods is an abstract subject and it needs more links between theory and practice.

3. Webquest design

To measure the effect of specific technologies on student achievement, assessment methods and instruments should be appropriate to the learning outcomes promoted by those technologies (Glennan & Melmed, 1996; Conte, 1997). Consequently, it was necessary to find a way to create a webquest that students could easily navigate,

and that could blend easily into a module that the tutor was familiar with. The study of research methods is a major core module for level 2 students. The tutor chose to create a webquest that could fit together the concepts students need to know, with an exciting/innovative method of delivery.

In 2001 Dodge devised a set of general guiding principles for creating a well-developed webquest. The following acronym helps to explain these principles:

- **F**ind great sites.
- **O**rchestrate learners and resources.
- **C**hallenge learners to think.
- **U**se the medium.
- **S**caffold high expectations.

By following the five FOCUS principles, Dodge (2001) believes that new webquest creators can improve both their practice and knowledge through previous people's experience. He subsequently developed a generic five-step process that can be used to design a webquest (Dodge, 2002). These steps are to: (a) select a topic appropriate for WebQuests; (b) select a design that will fit the topic; (c) describe how students will be evaluated; (d) design the process by finding specific resources which could be explained further; and (e) modify and improve the webquest. These principles and steps were considered in creating and designing this webquest.

Through this research methods webquest, students can learn about different research philosophies such as positivism and phenomenology, the various quantitative and qualitative research methods or techniques, and literature reviews. The intent of this webquest is to support a lesson or provide a lesson to help second year leisure, tourism and hospitality students learn about the different research philosophies in social science.

In summary, the webquest consists of six sections:

- **Introduction:** aims and objectives of the webquest.
- **Task & Guidelines:** rationale and instructions.
- **Resources:** visit internet sites to gather information on each research philosophy.
- **The Process:** five activities (steps).
- **Evaluation:** debate session.
- **Conclusion:** summary of the points mentioned before.

4. Webquest organisation

The organisation of this webquest comprises five sessions: an introduction and guidelines; basic concepts of research; research philosophies such as positivism and phenomenology; favourite research diagnosis; debate and evaluation. It should be noted that every session was run during the second half of the lecture time and supported the delivery of information during the formal lecture. Students needed some upfront learning about research methods prior to getting started on the

webquest. Therefore it was decided to start the webquest in week 3 of the first semester of the academic year 2004/05. A computer lab was booked for the first session to familiarise the students with the activity and its tasks. Students were split into two groups to provide each student with a computer. The tutor was also available in the computer lab for guidance, support and assistance.

4.1 Webquest introduction (Semester week 3)

The first webquest session began with a brief overview outlining:

- the definition of the webquest concept;
- the aims and anticipated objectives of the webquest;
- some of the potential benefits of doing this activity; and
- some of the likely problems that students may encounter such as difficult concepts, technical problems and unfamiliarity with the internet.

The overall purpose of the introduction was to give students an idea about the webquest and to stimulate their thinking on the subject. Students were also informed about the guidelines and the different internet sites they would be using to gather information on each research philosophy. The suggested time for the webquest introduction was 30 minutes and afterwards the students were asked to go to the computer lab to visit the webquest website. Students were asked to do the first task, which was about defining some basic research concepts (e.g. research, literature, theory, primary and secondary research and so forth) and to submit their written answers in the session of Semester Week 3.

4.2 Basic concepts (Semester week 4)

In the second session, the basic research concepts of task 1 were discussed with the students. Then, students were introduced to the second task of the webquest. Every student was asked to write a one-page paper in which he/she contrasted the 'Positivistic Philosophy' with the 'Phenomenological Philosophy' in social science and identified the most common positivistic and phenomenological research methods. In the seminar session of week 4, they were required to submit this one-page report. Students were encouraged to gather their information from different sources as indicated in the webquest website.

4.3 Research philosophies (Semester week 5)

The basic characteristics of every research philosophy and its methods were discussed in that session. Then the students were asked to investigate their personal predisposition towards particular research philosophy by answering the questions at the webquest website. Students were able to diagnose their favourite research philosophy and know the results immediately after filling in that questionnaire.

4.4 Favourite research diagnosis (Semester week 6)

In this session every student was asked to prepare a short paper (one page) justifying why s/he is happy or not with the results of the questionnaire.

According to the results of the questionnaire, the class was divided into two groups: (a) 45 students in group 1 represented the quantitative researchers and (b) 27 students in group 2 represented the qualitative researchers. A class debate was organised between the supporters of each philosophy to conclude this webquest. Some guidelines and instructions were given regarding the debate.

4.5 The debate (Semester week 7)

The truth about this topic is pretty complex—a lot of research scholars have different opinions about research methods and concepts (Tashakkori & Teddlie, 1998). Therefore, all students were encouraged to come to the class and participate in a debate to defend their favourite research philosophy and to evaluate their own argument. In the debate session, the students were divided into two groups: the ‘Positivistic Group’ and the ‘Phenomenological Group’. Each group had to make a short presentation in favour of their philosophies. This was followed by a structured debate of the main issues raised by the presentations and concluded with a closing statement. It was the responsibility of the students concerned to plan and manage the debate. The tutor was neutral and only acted as a facilitator or organiser.

After completing the debate between the two groups, the tutor gave the students a lecture on the combined research methods in order to conclude the debate. The students learnt that there is nothing right or wrong in research methods; all research methods have some merit. The value and relevance of the paradigm depends on the nature of the research topic, its aims.

5. Methods

An examination of the research methodology literature reveals that there are a number of techniques and methods available to tackle a particular research problem and there is no hard and fast rule to follow (Anderson & Arsenault, 1998; Cohen *et al.*, 2000; Coleman & Briggs, 2002).

In this research, both quantitative and qualitative data collection methods are combined in order to maximise the amount of pertinent data (Jarratt, 1996 and Abrahamson, 1983). There are many reasons for viewing the eclectic approach or the mixed method design as the most appropriate one for this research study. First, a multi-method approach allows the researcher to attack the research problem with an arsenal of methods that have non-overlapping weaknesses in addition to their complementary strengths (Creswell, 1995). Second, every method has its limitation and multiple methods are usually needed (Jarratt 1996). In other words, Brewer and Hunter (1989, p. 17) describe mono-method designs as ‘a diversity of imperfection’. Moreover, Tashakkori and Teddlie (1998) point out that mono-method approach

studies are becoming increasingly rare in the social and behavioural sciences. Third, a number of authors believe that the research question is more important than either the method used or the worldview that is supposed to underlie the method (Brewer & Hunter, 1989; Greene *et al.*, 1989; Cherryholmes, 1992; Reichardt & Rallis, 1994; Creswell, 1995).

Therefore, a combination of both survey and focus group techniques is judged to provide the most comprehensive means of capturing exploratory, descriptive and explanatory data pertinent to the stated research aim. In combining methodological approaches in this way, higher levels of validity, reliability will be achieved than by employing any single mode in isolation.

Each questionnaire consisted of 20 statements, for which students were required to choose 1 out of 5 ranging from strongly agree to strongly disagree (Likert scale). The questionnaire was pre-piloted within the target group (three academics and five students) and necessary modifications were made. All second-year leisure, tourism and hospitality students were offered the opportunity to complete the questionnaire. There were 68 responses giving a return rate of 76.4%.

The questionnaire findings and the literature review were used to formulate the Focus group questions. Three open discussion questions based on questionnaire findings were formulated:

What strengths or weaknesses did the webquest have with respect to your learning compared with more traditional methods?

Which aspects of the learning experience did you consider most/least interactive and motivating?

What would you suggest to further develop the webquest to make it more effective and stimulating learning tool?

Participant responses were recorded in writing and organised into the categories of satisfaction, dissatisfaction and suggestion. The findings of the survey and focus group interview are discussed and analysed below.

6. Findings

The participants were aged between 18 and 30 years. There were 33 male and 36 female members of the cohort. The majority of students (30) were studying tourism management while the rest were studying Hospitality Management and Leisure Management (16 and 22 students, respectively). All students had at least the minimum knowledge of using computers and internet.

All participants found the webquest activity stimulating (79.4% strongly agree, 20.6% agree) as a teaching and learning method. It is worth mentioning that none of the students answered 'disagree' at the other end of the scale. Moreover, most students agreed (91.2%) that the webquest sessions were relevant and useful. Along the same lines, all students agreed that the webquest objectives and tasks related well to the intended learning outcomes for the module. Similarly, the majority (88.2%) agreed that the webquest has positively affected their progress and knowledge. These

results support the notion that the webquests can be used to improve the quality of teaching and learning at different educational levels (Ezell *et al.*, 2003).

Although 72% of the students agree that the activity was well organised, interestingly 22.1% were uncertain regarding that point. This might be attributed to their unfamiliarity with such type of internet activities. Similarly, the majority of the students agreed (79.4%) that they had sufficient opportunity to get help and advice on their academic progress while 20.6% were uncertain or disagreed with the same statement. This might be attributed to: (a) the lack of time as mentioned before and/or (b) their insufficient knowledge of technology. The findings confirm previous work by Faseyitan and Hirschbuhl (1992), which indicated that more training is needed to overcome a variety of inhibiting factors such as fear of change, criticism, lack of understanding of new technology. It also confirms that the human communication should not be ignored in the learning technology process as suggested by the literature (Spitzer, 1998; Willis, 1998).

In terms of the user-friendly aspect of the webquest, Table 1 shows a significant level of agreement. For example, 64.7% of students agreed that they found the webquest design very helpful in locating items quickly. However, discussion in focus groups clearly put forward some challenges faced by students. Further explanation is provided by the following statements:

'It would have been better to have more time to do the tasks and more IT guidance and assistance'

'It is time consuming having to go in and out and finding the place you have got to.'

'Difficulty in accessing some website resources is a disadvantage as it affected my progress.'

Table 1. The ease of use of the webquest

Statements	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree	Mean	S. D.
The webquest design was helpful in locating items quickly	30.9%	33.8%	14.7%	13.2%	7.4%	2.32	1.25
The relationship between screen activities and paper-based activities is clear and well-organised	42.6%	26.5%	17.6%	11.8%	1.5%	2.01	1.13
It is easy to learn how to navigate so that you can concentrate on learning	25.0%	44.1%	26.5%	4.4%		2.10	.83
Reading text from the screen was difficult/uncomfortable	20.6%	35.3%	14.7%	19.1%	10.3%	2.62	1.28
I was properly prepared for the use of the webquest	8.8%	30.9%	29.4%	17.6%	13.2%	2.96	1.18
Overall, the webquest was user friendly	36.8%	33.8%	16.2%	2.9%		2.09	1.10

'It is uncomfortable to look at a computer screen for long periods as you get headaches and lose your concentration'

However, these challenges could be analysed in the following manner. Firstly, as mentioned above, time constraint was the result of the webquest being designed as an additional formative activity that was not initially included in the module. Secondly, more IT support was needed due to the limited internet knowledge of some students. Finally, 'some website resources were not accessible' is beyond the control of the author because of many reasons such as (a) the website creators need to update or renovate their websites from time to time and (b) technical problems such as system failure. Also, these findings are supported by a study carried out by Macgregor (2001) which indicated that many online students displayed concerns with regards to the technical problems that they had experienced and as a result had affected their work.

Information relating to the level of satisfaction with the webquest learning experience in Table 2 indicates that there is an overall significant degree of student learning satisfaction in terms of the instructional, revelatory and emancipatory paradigms. For instance, most participants (89.7%) would recommend their experience to other potential learners and the majority (78%) stated that the research approach was more interesting than traditional reading and note-taking. This finding supports earlier studies by Littlejohn (2003); Seale & Rius-Riu (2001); DfES (2002); and Becta (2002), who emphasised the significance of technology in HE in terms of student motivation, engagement, progress and development.

In addition, the following statements from the focus group discussion reflect some good aspects of the webquest format.

'Flexibility on class attendance.'

'Links to other web sites and reference databases.'

'Open access to the webquest material at all times.'

'Able to access material from off-site location.'

'I find it more convenient to work through the webquest as I can choose a time that is more suitable to myself. It is also useful to look back on, should I need to check on any information.'

'A useful information and learning tool—an excellent way to gain knowledge through technology.'

'Useful content, well laid out, attractive to look at—very user friendly.'

These findings support the belief of Evans and Fan (2002), that there are three main advantages to online learning: (1) learner-determined location for learning, (2) learner-determined time of learning and (3) learner-determined pace of study.

On the other hand, students also suggested some poor aspects of the webquest as reflected in their following comments:

'Difficulty in printing material'

'Slow speed to load on occasions'

'Difficulty on locating some material within the webquest quickly'

Table 2. The success of the learning experience

Statements	Strongly agree	Agree	Uncertain	Disagree	Strongly disagree	Mean	S.D.
The Instructional Paradigm							
The learning outcomes of the webquest were clear and comprehensive	16.2%	55.9%	25.0%	2.9%		2.00	.73
The activities were appropriately sized to allow effective learning	36.8%	38.2%	19.1%	5.9%		1.94	.90
The webquest provided a balanced approach to learning, e.g. text, exercises	52.9%	23.5%	8.8%	14.7%		1.85	1.10
The examples used add clarity	19.1%	13.2%	42.6%	20.6%	4.4%	2.78	1.12
I would recommend my experience to other potential learners	76.5%	13.2%	8.8%	1.5%		1.35	.71
The Revelatory Paradigm							
The webquest format was helpful in enabling me to group ideas together	48.5%	32.4%	19.1%			1.71	.77
The research approach was more interesting than traditional reading and note-taking	47.1%	30.9%	22.1%			1.75	.80
The Emancipatory Paradigm							
I can use the webquest without the need for an instructor	29.4%	22.1%	11.8%	13.2%	23.5%	2.97	1.57
Being able to bypass materials was helpful	39.7%	35.3%	25%			1.85	.80
The specified time allocation for each task was reasonable	26.5%	15.5%	13.2%	7.4%	1.5%	2.06	.91

This means the webquest needs to be redesigned to avoid such limitations in order to increase its effectiveness in terms of student engagement and interaction.

As understanding depends on reflection which respectively depends on engagement, it is crucial that students are involved by the learning technology (Laurillard, 1993, 1995). Accordingly, respondents were asked to express their agreement with regards to their interaction and engagement with the webquest. Most of the respondents (76.5%) state that they were wholly engaged in the activities and they (80.8%) agreed that the majority of activities were realistic. Moreover, most respondents (82.4%) felt that 'Overall, the instruction was appealing/motivating'. Along the same line, most students agreed that tutor feedback helped them to maintain their interest. Discussion in focus groups suggested that participants found the webquest to have

many advantages in terms of their engagement. This is further explained by the following quotations:

'The learning was more interesting through interacting with different internet sites.'

'More tasks to be included in the webquest would make it more interactive.'

'Applying new webquests to other modules would support us to gain more knowledge through the net.'

'The ability to learn through interaction is more motivating than the traditional methods.'

'I enjoyed the interactive activities of the webquest as they enabled me to increase my knowledge step by step.'

'There was a detailed feedback after completing each activity.'

There is therefore a significant degree of student satisfaction with the level of engagement and interaction with the webquest. Also, these findings robustly strengthen the work of Polloff and Pratt (2001) who revealed that students are most satisfied with courses in which instructors facilitate frequent contact between themselves and students, use active learning techniques, convey high expectations and provide prompt feedback.

7. Discussion

Eley and Eley (1995) suggest that introducing new teaching and learning techniques for staff and students is one of the main factors stimulating the interest in technology in HE. In addition, the tutor's key goal is to encourage each student to achieve to the best of his/her abilities. The obvious way to accomplish that goal is through the use of new, innovative technology-based strategies. This is where webquests can play a role in teaching philosophy as a learning tool.

This paper shows that the students involved in the study expressed having had a positive experience and appeared to be satisfied with their learning experience via the webquest. As a result, the tutor feels the students will learn and remember the material far better than if they had taken part in a typical class environment comprising of lecture, discussion, and traditional activities. That is because previous research proved that CBL is at least equally as effective as the traditional lecture format for teaching (Stocks & Freddolino, 1998, 2000) and is perceived as helpful by students (Thurston *et al.*, 1996; Svanum *et al.*, 1997; Maki *et al.*, 2000; Polloff & Pratt, 2001).

The internet is a solid foundation for helping students learn and conduct research in today's school system (Bailey & Cotlar, 1994; Ellsworth, 1994; Alexander, 1995; Cecez-Kecmanovic, 1996; Mioduser *et al.*, 1999; Thompson, 1999). In addition, Dodge (2001) states that webquests are about a focus on using information rather than looking for it, and to support learners' thinking at the levels of analysis, synthesis and evaluation. This focus was fostered throughout the design and activities of this webquest. In relation to the webquest activities, the students were asked to take in several different research methods and then analyse and evaluate how important

those are to the fields of tourism, leisure and hospitality. The students had to analyse, synthesise, and evaluate how important each research philosophy was, both to their particular field of study and how they might use it in the future to solve their managerial problems. Similarly, the webquest included other important aspects such as the diagnosis task, the consensus-building task, and the persuasion task. The students were asked to diagnose their favourite research philosophy based on their own reasoning. They were then asked to come to a consensus and assign values to their favourite research philosophy through justifying their preferred research method. Finally, the students were asked to justify their favourite research philosophy and to endeavour to persuade the class and tutor through logically and academically defending their favourite school of research.

Regarding the webquest design, the students did not need to spend several hours reading through websites generated from a search engine because the websites were provided for them. Also, the students did not have the opportunity to be distracted from the task, because they had no excuse to be at websites other than those included in the webquest. As a result of using the webquest, these two common problems associated with student internet use are avoided.

This webquest was definitely a challenging and rewarding experience. Most students liked the webquest and would like to see similar webquests for all their other modules. They liked completing each task. Most students were able to complete all of the tasks and follow the instructions. These findings lend support to what have been previously discussed in the literature (Seale & Rius-Riu, 2001; Becta, 2002; DfES, 2002; Littlejohn, 2003) with regard to the value of using technology to support learning and teaching.

Some students took a little longer but were able to complete the tasks with some guidance. Others became frustrated with the tasks and were not very proficient with internet usage. The directions the tutor designed did aid most students with their webquest but some were still confused. The directions on the internet on the webquest itself were originally the only ones given. Most students found this helpful, but there were still some students who were overwhelmed due to the lack of familiarity with technology. This finding highlights the significant importance of student preparation and support throughout the learning technology journey.

8. Limitations

Despite the success of this webquest, there are a number of limitations.

- More time was needed to familiarise students with the webquest concept and its tasks. The webquest was designed after the module contents were planned and decided; therefore it was difficult to totally fit the webquest within the contents of the module because the webquest was not developed and designed as an integral part of the module.
- Some students had inadequate technological knowledge; they needed more training, support and guidance.

- Some of the current webquest tasks were completed in the classroom although in an ideal world students should complete the tasks without directly being in a classroom setting and thus relying solely on electronic means. These tasks were carried out in the classroom because: (a) the webquest was a formative activity and some students would not complete the tasks if they had been asked to do them away from the classroom; (b) in order to encourage more students to participate in this activity; (c) some students needed direction and guidance due to their poor level of technology; and (d) time limitation as there was not enough time available if any of these tasks needed to be repeated.

Taking account of these limitations and previous ones mentioned in the findings from the focus group, the webquest will be redesigned to further support students in making effective use of it and its associated resources. In addition, new resources and tasks will be suggested. For example, students will be asked to summarise their tutorials and to complete the tasks online. An electronic forum will be developed for the debate. A discussion board will be integrated into the webquest. The final dimension that needs to be included is the use of another person in the classroom to assist with small groups of students who were all lacking computer proficiency.

9. Conclusion

This paper represents an exploratory study to investigate the value of using a specific form of technology, namely webquest, to support teaching and learning in HE. In doing so, the paper has discussed the importance of technology and CBL in HE in general and the webquest in particular. The paper focused on the description, analysis and evaluation of the webquest, which was specially designed for the research methods module which is a core module for all Level 2 Leisure, Tourism and Hospitality students at the University of Wolverhampton.

It has been found that students understood to a great degree about the research philosophies and techniques in social science. They began to see the relationship between the research philosophy and the research aim(s) and question(s). Most students wanted to extend their learning beyond this activity. They wanted the tutor to create more webquests for other areas of the curriculum. There was rarely a time when students were not enthusiastic about what they were learning and doing on the computers. Students also found a new appreciation for the wealth of knowledge to be found on the internet.

The findings of this paper agree with the argument of Massy and Zemsky (1995) in relation to the growing importance of technology in HE. They state that increased productivity and lower costs cannot be achieved unless HE institutes embrace technological tools for teaching and learning. Overall, the results show high levels of students' satisfaction with the effectiveness of the webquest in terms of their progress and their development, their engagement and interaction with the webquest, their learning experience success and the webquest design. Subsequently, the author

believes that this new technological tool will add a new dimension to the growing use of CBL in HE.

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